

C L A I M S

1. A seismic sensor, comprising a case; a pre-charged, non-conductive membrane located between two plates that form a capacitor and accommodated inside said case, with one of said plates being immovable relative to said case and the other of said plates being movable relative to said one plate under the action of seismic activity of a medium in which the sensor is located, so that said capacitor produces an electrical signal responsive to the seismic activity; and a mass increasing element associated with said movable plate so as to increase mass of said movable plate and therefore enhance oscillations of said movable plate under the action of the seismic activity.

2. A seismic sensor as defined in claim 1, wherein said mass increasing element is formed as a lug which is attached to said movable plate.

3. A seismic sensor as defined in claim 2, wherein said mass increasing element is located substantially centrally of said movable plate.

4. A seismic sensor as defined in claim 1; and further comprising an electronic unit which is connected with said capacitor.

5. A seismic sensor as defined in claim 4, wherein said electronic unit including an operational amplifier with high impedance input and a resistance, and a capacitance.

6. A seismic sensor as defined in claim 1, wherein said case is formed as a double shield for protection from electromagnetic interference.

7. A seismic sensor as defined in claim 6, wherein said double shield includes one shield composed of copper and another shield composed of nickel.